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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/818,303	Applicant(s) DIMITROVA ET AL.	
	Examiner Jason P. Salce	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/9/2005 have been fully considered but they are not persuasive.

Applicant amended the independent claims to state, "ascertaining if the query needs to be recast and prompting for user input if the query needs to be recast", which the Applicant argues is not met by the Reimer prior art reference of record. The examiner disagrees and provides a breakdown of the claim limitations and how they are met by the Reimer reference.

For the first part of the claim limitation, "ascertaining if the query needs to be recast", the Applicant states that **"Reimer et al. do not disclose, or suggest, that any form of further user input is to be used in making the determination of recasting"**. The examiner notes that the claim limitation is broad and does not limit the claim to the actual query system (Figure 1) making the determination, or if the user makes the decision to ascertain if a more detailed question needs to be asked in order to determine a more detailed answer to a previous query. Reimer teaches at Column 16, Lines 26-40 that the system allows a user to ask multiple questions, such as, "Who is this person?". Reimer also teaches at Column 16, Lines 55-58 that if a question is ambiguous, the user may elect to ask a more specific question, such as, "Who is the principle actor?", therefore, Reimer discloses that the user may ascertain if the query needs to be recast, as required by the amended independent claims.

For the second part of the claim limitation, "and prompting for user input if the query needs to be recast", Reimer discloses at Column 16, Lines 44-47 that a user may identify a question by traversing a user menu (also note Column 16, Lines 58-61 for a further discussion of selecting from a multitude of questions from a user menu). The examiner notes that the claim limitation is broad and does not distinguish if the system automatically prompts a user or if the user initiates the prompting. Therefore, Reimer clearly teaches by the use of a user menu for selecting questions, "prompting for user input if the query needs to be recast".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-11, 13-25, 27-29, 31-28, 40-52 and 54-59 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Reimer et al. (U.S. Patent No. 5,553,221).

Referring to claim 1, Reimer discloses providing video query processing software (see Column 8, Lines 54-59 for software 210 that enables the processor 204 perform functions described herein, and Column 16, Lines 26-28 for the user being able to send a query while viewing/interacting with a movie). Therefore, the user is provided video query processing software at the user device 106.

Reimer also discloses providing video content (see Column 7, Lines 58-63 for the user at the user device 106 receiving foundation information and Column 7, Lines 2-6 for the foundation information being "video content"). The examiner notes that the limitation "video content" is broad and could encompass audio, video or data (content) associated with a video program.

Reimer also discloses dynamically linking the software to the video content (see Column 16, Lines 26-28 for the user at the user device 106 interacting with the video by sending a query at anytime while viewing and/or interacting with a movie). Note that the specification of the instant application defines "dynamically linked" as being able to interact with the video content and associated audio and text, in real time. Therefore, since the user can interact with the video by sending a query, the user device's (106) software (210) is dynamically linked to the video content.

Reimer also discloses receiving by the software a query keyed to a segment of the video content (see Column 16, Lines 28-41 for pausing the video content to a specific frame of the movie and the user indicating a question about the movie related to the movie, scene, cut and/or frame that is currently being displayed).

Reimer also discloses ascertaining if the query needs to be recast (Reimer teaches at Column 16, Lines 26-40 that the system allows a user to ask multiple questions, such as, "Who is this person?" and also teaches at Column 16, Lines 55-58 that if a question is ambiguous, the user may elect to ask a more specific question, such as, "Who is the principle actor?", therefore, Reimer discloses that the user may ascertain if the query needs to be recast).

Reimer also discloses prompting for user input if the query needs to be recast (Reimer discloses at Column 16, Lines 44-47 that a user may identify a question by traversing a user menu (also note Column 16, Lines 58-61 for a further discussion of selecting from a multitude of questions from a user menu)).

Reimer also discloses determining by the software an answer to the query (see Column 18, Lines 1-2 for the user providing a query asking "Who is this?" and Column 18, Lines 65-67 and Column 19, Lines 1-3 for sending an answer to the question asked by the user).

Referring to claim 2, Reimer discloses that the software is within a video processing system (see Column 7, Lines 62-63 for the user device 106 presenting foundation information, where the foundation information is a movie (see Column 7, Lines 2-3 for the foundation information being video content)). Therefore, since the user device 106 can receive and present a movie, the user device 106 is a video processing system, that contains the software within the video processing system (see the rejection of claim 1).

Referring to claim 4, the applicant's specification of the instant application defines a service mode to be when the video processing system is operating with an external database, which has access to a database other than the Internet (e.g. access to a database of a remote server) (see Page 8, Lines 18-19 of the Applicant's specification).

Reimer discloses that the foundation information database is a remote database (see Column 7, Lines 8-11 for the foundation information database 112 being a file server and Figure 1 for the user device 106 communicating with the foundation

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information database 112 through a communication medium 124, and is therefore a remote server). Therefore, the video processing system is operating in a service mode. Referring to claim 5, Reimer discloses providing video content includes providing video content in real-time (see Column 16, Lines 26-28 for allowing a user to send a query to the presentation and control component 104 at any time while viewing the movie). Therefore, since the user may send a query while viewing the movie, the video (that the viewer is watching) is provided in real-time. Also note Column 6, Line 67 and Column 7, Line 1 for providing foundation information (video content) on-demand, therefore, since the answer to the query is provided on-demand in the form of foundation information, the on-demand data transmitted to the user is in "real-time".

Referring to claim 6, Reimer discloses that the foundation information, stored in the foundation information database 112 (see Column 7, Lines 10-11) is movie data (video content) and can be provided to a user on-demand (see Column 6, Line 67 and Column 7, Line 1). Also note that source information (Figure 3) used for creating the foundation information includes pre-production, production and post production information, which is used to create the foundation information, stored in the foundation information database 112 (see Column 9, Line 40 through Column 10, Line 15).

Referring to claim 7, Reimer discloses receiving information by the software (see again Column 18, Lines 65-67 and Column 19, Lines 1-3 for receiving information at the user device 106 (which contains the software that operates the user device) in the rejection of claim 1), wherein the information is derived from a database (see Column 18, Lines 45-58 for deriving actors names from an Actor In Take Table 1002 that relate

to the user's query), and wherein the information answers the query (see Column 18, Lines 65-67 and Column 19, Lines 1-3 for the information being the actors stored in the table, which is transmitted to the viewer in order to answer the viewer's query).

Referring to claim 8, Reimer discloses receiving data from the database, wherein the data includes the information (see Column 20, Lines 22-26 for receiving data equal to the "Director" section of the table, where the data includes the information sought by the user query).

Reimer also discloses extracting the information from the data (see Column 20, Lines 27-29 for extracting the name of the director from the person column of the row).

Referring to claim 9, Reimer discloses finding data in the database, wherein the data includes the information and extracting the information from the data at the database (see Column 18, Lines 45-58 for retrieving information from data in the Actor In Table 1002 database). The examiner notes that in order to retrieve the data (which includes the information) in the database, it must inherently find the proper data in order to extract (retrieve) the data corresponding to the user's query.

Reimer also discloses sending the information to the software (see Column 18, Lines 65-67 and Column 19, Lines 1-3 for sending the extracted information to the user device 106, which contains the software used to control the user device 106 (see the rejection of claim 1)).

Referring to claim 10, Reimer discloses identifying the database (different tables located in the databases (see Figures 5-6)) by a pointer (see Column 7, Lines 25-30 and Figures 5-6 for accessing indices of the foundation information) located in a search

site descriptions repository (see Column 7, Lines 21-30 for an index interface component 118, which controls access to index information 310 in an index information database 122 that references and organizes the data stored in the foundation information database 112). The examiner notes that the search site descriptions repository limitation is met by the index information database 122, but is not limited thereto.

Referring to claim 11, Reimer discloses that the software is within a video processing system (see the rejection of claim 2), and wherein the database is external to the video processing system (see Figure 1 for the user device 106 being external to the index information database 122 and communicate through a communications medium 124, which can be a wide area network (see Column 6, Lines 47-48)).

Referring to claim 13, Reimer discloses that the database is coupled to a remote server (see Index information database 122 connected to presentation and control component(s) 104 remotely (through communications network 124) in Figure 1).

Referring to claim 14, Reimer discloses that providing video content includes providing the dynamic video content to a user of the video query processing method (see again Column 7, Lines 58-63 for providing the dynamic video content, wherein the video content is dynamic because the results of the query are going to change depending on the type of question asked), and wherein receiving the query includes communicating the query to the software by the user (see Column 7, Lines 52-53 for the user devices 106 receiving input from the user regarding what question to ask the system).

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Referring to claim 15, Reimer discloses communicating the answer to the user (see Column 18, Lines 65-67 and Column 19, Lines 1-3).

Referring to claim 16, Reimer discloses receiving by the software, information derived from each database of a plurality of databases (see Figure 11 for accessing multiple tables (databases) and presenting the queried information to the user), wherein each database is external to the video processing system (see Figure 1, where the user device is external (remote) to the Index Information Database(s) 122 and Foundation Information Database(s) 112 and Column 6, Lines 43-56) and wherein the information derived from each database partially answers the query (see Column 19, Lines 55-67 and Column 20, Lines 1-37 for the system answering the user's query, "What Other Films Has This Director Worked On?", which accesses multiple databases (1202-1216), where each database partially answers the query (see Column 20, Lines 5-9, 18-21 and 22-33 for each database pulling certain information (which therefore inherently partially answers the question) to display to the user)).

Reimer also discloses merging the information derived from each database to arrive at the answer (see Column 20, Lines 33-37 for displaying the results derived from the information pulled from databases 1202-1216 previously discussed).

Referring to claim 17, see the rejection of claim 16 (also note the rejection of claim 8). Note that the data received from each database inherently includes the information. For example, note Column 20, Lines 2-3 for person data (the data) being received from the One Movie Credit database 1202, which contains person information.

Referring to claim 18, see the rejection of claims 16-17 (also note the rejection of claim 9). Further note that the extracting is executed at each database (see again Column 20, Lines 22-34 for extracting the data from the database). Further note that Reimer teaches sending the information derived from each database (the answer to the query) to the software (see Column 20, Lines 34-37 for sending the information to the user device, which contains the query software that allows a user to make a query).

Referring to claim 19, Reimer discloses that the query received by the software is a canned (pre-stored, as defined by Applicant's specification) query (see Column 16, Lines 43-46 for the user selecting the query from a menu, thereby providing a list of questions that are already stored in a list for presentation to the user).

Referring to claim 20, Reimer discloses that the canned query is a function of a genre of the video (see Column 16, Lines 38-39 for the user's query being, "What other movies have script lines similar to what was just said?", therefore providing a query that requests other movies that relate to the type of movie (genre) the viewer is watching).

Referring to claim 21, Reimer discloses that the query received by the software is an unbounded query (see Column 16, Lines 62-65 for asking the question "Who is this person?", which could pertain to multiple actors on a screen) and further deriving the at least one canned (pre-stored) query from the unbounded query (see Column 16, Lines 55-67 and Column 17, Lines 1-9 for deriving the question, "Who is the character in this scene?").

Referring to claim 22, Reimer discloses that the query received by the software is in indefinite form, and wherein ascertaining further comprises recasting the received

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query in definite form (see the rejection of claim 21 for deriving a canned query from an unbounded query, where the indefinite for of the question is "Who is this person?" and recasting the question to a definite, more precise question, "Who is the character in this scene?"). Also note the rejection of claim 1 and the arguments above for further covering the ascertaining and recasting limitations.

Referring to claim 23, Reimer discloses receiving by the software a program-level question in relation to the video content (see Column 16, Line 36 for the question, "What other movies has the director done?). The examiner notes that since this question relates to other movies/programs, that the question is therefore, a program-level question.

Reimer also discloses ascertaining by the software an answer to the question (see Column 20, Lines 35-37).

Referring to claim 24, Reimer discloses extracting features from the video content (see Column 10, Lines 65-67 and Column 11, Lines 1-19 for capturing the source information (video content) and extracting features from the source information into the foundation information 306 (Figure 3, which is stored in foundation database 112) and processes index information from the extracted features at Column 11, Lines 32-34 and Lines 53-59), wherein the ascertaining includes utilizing the extracted features to answer the question (see Column 14, Lines 51-55 for using the extracted data to answer user queries).

Referring to claim 25, Reimer discloses storing the extracted features in transient memory prior to utilizing the extracted features (see Column 7, Lines 10-11 and Column 8, Lines 43-63) to answer the question (see the rejection of claim 24).

Referring to claim 27, Reimer disclose that extracting features from the video content includes extracting features from the video program of the video content (see Column 10, Lines 65-67 for extracting the source information 302 and Figure 4 and Column 10, Lines 11-15 for the source information 302 containing a movie (video program)).

Referring to claims 28-29, 31-38, 40-52 and 54, see the rejection of claims 1-2, 4-11, 13-25 and 27, respectively. Note Figures 1 and 2 for the system to execute the set forth by the method/process rejected in claim 1.

Referring to claim 55, see the rejection of claim 1. Also note that Reimer teaches a processor (Figure 2, 204), memory structure coupled to the processor (primary memory 208 coupled to the processor 204 though bus 206 in Figure 2), a local database coupled to the processor (secondary memory 214 coupled to the processor 204 through bus 206 in Figure 2), a video input device coupled to the processor and the local database (see Column 6, lines 36-37 for a STB which is inherently coupled to the processor in order to process the query specified by the user), a user input device coupled to the processor (see Column 6, lines 38-39 for a keyboard, which is inherently coupled to the processor in order to enter the user's query) and an output device coupled to the processor (see Column 6, Lines 36-37 for a television monitor, which

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would inherently be coupled to the processor 204 and local database 214 in order to display the query answers to a user disclosed by Reimer).

Referring to claim 56, see the rejection of claim 16.

Referring to claim 57, Reimer discloses a video source (see Source Information 302 in Figures 3-4), wherein the video processing architecture is configured to enable the video source to transmit the video content to the video processing system (see Figure 1 for the Foundation Information Database(s) 112 being coupled to the user devices 106 (and devices 104, 108, 114, 116, 118 and 122) through communication medium 124, therefore the system would inherently transmit any source information to the proper components to process the video content in various ways).

Referring to claims 58, Reimer discloses that the software is configured to receive the query from a user of the software (see the rejection of claim 1 and Figures 9A and 11 and the computer system containing the software in Figure 2).

Referring to claim 59, note that the system disclosed in the rejection of claim 1 includes a computer program product comprising a computer readable medium (see Figure 2) having a computer readable code embedded therein (see the control logic 210 and data 212 in Figure 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3, 12, 30 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer et al. (U.S. Patent No. 5,553,221) in view of Wang et al. (U.S. Patent No. 6,766,320).

Referring to claim 3, the applicant's specification of the instant application defines "stand-alone mode" as the video processing system operating with the external database 24 limited to the Internet (see Page 8, Lines 16-17).

Reimer discloses a communications medium 124 in Figure 1, which can be a wide area network (see Column 6, Lines 46-50), but fails to specifically teach the use of the Internet.

Wang discloses a user query system (see Column 4, Lines 45-47) in a video processing system (see Column 4, Lines 54-55 for the client device 102 being a set-top box), and that the user query system specifically uses the Internet (see Column 4, Line 47).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the communications medium 124 in the video query processing system of Figure 1, as taught by Reimer, using the Internet, as taught by Wang, for the purpose of improving the user interface (by providing an Internet enabled interface) of search engines to better capture the user's intention as a way to provide higher quality search results (see Column 2, Lines 54-56 of Wang).

Referring to claim 12, see the rejection of claim 3.

Referring to claims 30 and 29, see the rejection of claims 3 and 12, respectively.

4. Claims 26 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reimer et al. (U.S. Patent No. 5,553,221) in view of Menard et al. (U.S. Patent No. 6,061,056).

Referring to claim 26, Reimer discloses all of the limitations in claim 24, as well as extracting features from the video content (see the rejection of claim 24), but fails to teach taking into account preferences of a user of the query processing method.

Menard discloses a system which captures audio, video and closed captioning text data (similar to Reimer's capture and digitizer component 304), which allows a user to make an SQL type query to extract video, which takes into account the preferences of a user (see Column 4, Lines 63-65 and Column 6, Lines 28-56).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to modify the capture system 304, as taught by Reimer, using the viewer preference capture system, as taught by Menard, for the purpose of allowing filtering and querying capability of live broadcasts and multimedia databases (see Column 3, Lines 16-20 of Menard).

Referring to claim 53, see the rejection of claim 26.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Salce whose telephone number is (571) 272-7301. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason P Salce
Patent Examiner

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October 27, 2005

James S. Miller
10/27/05